REMARKS

This amendment is responsive to the Office Action mailed March 18, 2004. Original claims 1-26 are under examination in the present action. All claims stand rejected.

1. Applicants acknowledge the priority claim set forth by the Examiner.

2. Applicants acknowledge receipt of the initialed PTO-1449 Forms and are grateful to the Examiner for considering the references cited therein.

3. Claim 1 was objected to for containing several informalities. Claim 1 has been canceled for other reasons discussed in detail in response to the rejection of said claim under 35 U.S.C. §102(b), discussed in detail later herein. The objection to claim 1 is therefore moot and should be withdrawn.

Applicants note that similar informalities not detailed by the Examiner were discovered during the preparation of this response and have voluntarily amended the pending claims to correct said errors. In particular, claim 2 was amended as follows:

in the definition of AA^1, the second comma after both Cmp and Tpr was deleted,

in the definition of AA^2, the second comma after both Cmp and Tpr was deleted and a space was inserted after "Pyp;";

in the definition of AA^4, the second comma after Tic was deleted,

in the definition of AA^5, the second comma after Tic was deleted, and

in the definition of AA^7, the second comma after Tic was deleted.

Claim 3 was amended as follows:

in the definition of AA^1, the second comma after both Cmp and Tpr was deleted,

in the definition of AA^{3b}, the second comma after Tic was deleted,

in the definition of AA^4, the second comma after both Tic was deleted,

in the definition of AA^5, the "and" after Lys was deleted, the "and" after Orn was deleted, the second comma after Tic was deleted and an "and" was inserted after "Fala,", and in the second proviso clause appended to claim 3, the second comma after both occurrences of Cmp and Tpr was deleted.

Claim 4 was amended by deleting the second comma after Fala in the definition of AA^2 and after Tic in the definition of AA^5. Claim 16 was amended by inserting a space following the semicolon after the 43rd compound listed therein, i.e., (A)aeg-cyclo(D-Cys-Pal-D-Trp-Lys-D-Cys)-Thr(Bzl)-Tyr-NH_2. Finally, claim 26 was amended to correct

the redundancy contained therein, i.e., repeating "acromegaly".

Applicants respectfully request the entry of the amended claims 2-4, 16 and 26 as detailed above.

4-5. Claims 1-26 stand rejected under 35 U.S.C. §112, first paragraph, for failing to comply with the enablement requirement.

When rejecting a claim under the enablement requirement of section 112, the examiner bears the "initial burden of setting forth a reasonable explanation as to why [he/she] believes that the scope of protection provided by [the] claim is not adequately enabled by the description of the invention provided in the specification." *In re Wright*, 999 F.2d 1557, 1562, 27 USPQ2d 1510, 1513 (Fed. Cir. 1993). To object to a specification on the grounds that the disclosure is not enabling with respect to the scope of a claim sought to be patented, the examiner must provide evidence or technical reasoning substantiating those doubts. Id.; and MPEP Section 2164.04. In support of the 112, second paragraph, rejection, the Examiner alleges that "the specification gives no indication as to which of the many peptides within the scope of the structural formulae have agonistic activity for neuromedin B or somatostatin, [t]hus practice of the claimed invention would require undue experimentation by an artisan of ordinary skill in the art."

With respect to claims 1-17, which are directed to compositions of a particular formula, Applicants respectfully submit that the Examiner has not set forth a reasonable explanation as to why these claims, which are all directed to compositions of a particular formulae, are not enabled by the specification. The specification, from pages 46-52, clearly teaches how to make all the peptides encompassed by the claims. Therefore, "how to make" is not an issue with any of claims 1-17. Applicants respectfully request withdrawal of the rejection of claims 1-17 as not being enable under 35 U.S.C. §112, first paragraph.

With respect to the rejection of claims 18-24 as not being enabled as required under 35 U.S.C. §112, first paragraph, the Examiner contends that "since the specification gives no indication as to which of the many peptides within the scope of the structural formulae have agonistic activity for neuromedin B or somatostatin..[to] practice …the claimed invention would require undue experimentation." The Examiner goes on to argue that "undue experimentation" would be required to practice the present application since "(1) the number of peptides that fall within the structural formulae is very large; (2)..no test results are set forth; (3) the specification is devoid of any working examples; (4) no structural relationship is shown for any of [the peptides] and no comparison is shown with somatostatin or neuromedin B; (5) the prior art shows

many somatotropin analogs, agonists and antagonists; (6) the relative level of skill in art is very high; (7) the predictability in the art of foretelling which compounds will have agonistic activity is virtually zero… and (8) the claims are enormously broad."

The quantity of experimentation needed to be performed by one skilled in the art is only one factor involved in determining whether "undue experimentation" is required to make and use the invention. "[A]n extended period of experimentation may not be undue if the skilled artisan is given sufficient direction or guidance." *In re Colianni*, 561 F.2d at 224,195 USPQ at 153. "'The test is not merely quantitative, since a considerable amount of experimentation is permissible, if it is merely routine, or if the specification in question provides a reasonable amount of guidance with respect to the direction in which the experimentation should proceed.' *In re Wands*, 858 F.2d at 737, 8 USPQ2d at 1404 (citing *In re Angstadt*, 537 F.2d 489, 502-04, 190 USPQ 214, 218 (CCPA 1976)). Time and expense are merely factors in this consideration and are not the controlling factors. *United States v. Telectonics Inc.*, 857 F.2d 778, 785, 8 USPQ2d 1217, 1223 (Fed. Cir. 1988), *cert. denied*, 490 U.S. 1046 (1989). Applicants contend that the specification provides detailed procedures from pages 20 to 24 for assessing the ability of a claimed compound to bind to a somatostatin subtype receptor, to act as an SST agonist

or antagonist and to bind to a neuromedin B receptor. Applicants contend that this disclosure provides considerable direction and guidance on how to practice the methods of claims 18-24 and that since there was a high level of skill in the art at the time this application was filed, as admitted by the Examiner, all of the methods needed to practice the invention of the instant application were well known and as such, the testing of compounds according to claims 2-4, would be routine.

The reasons given by the Examiner for support of his conclusion that the present application required undue experimentation do not support such a finding. With respect to point (1), Applicants contend that the number of species is not determinative of enablement, since a considerable amount of experimentation is permissible. *See Wands supra at 737*. Even if one needed to test a great number of claimed compounds to determine which were agonists or antagonists of somatostatin or neuromedin B, the specification clearly provides the guidance as to how to test such compounds, thus making the testing routine. Applicants further contend that the compounds of claims 2-4 are highly specific and all have specific characteristics, i.e. a disulfide-bridge between AA^3 and AA^6 or AA^1 or AA^3 and AA^8, and as such, do not as great in number as alleged by the Examiner.

As for point (2), Applicants contend that the specification provides sufficient direction and guidance as to how to make the claimed compounds and how to test the compounds for their ability to elicit an effect from either neuromedin B or somatostatin receptors. The Examiner's position that predictability is required is not supported by authority. Predictability was not a factor in *Wands*. Enablement is not precluded by the need to routinely screen a number of compounds to determine their ability to perform as claimed.

The Examiner's third conclusion that the application is devoid of any working examples is without merit. To the contrary, the Applicants have disclosed approximately 150 claimed analogues exhibiting selectivity for neuromedin B and somatostatin receptors[1]. Without a reason to doubt the truth of the statements made in the patent application, the application must be considered enabling. *In re Wright*, 999 F.2d 1557, 1562, 27 USPQ2d 1510, 1513 (Fed. Cir. 1993); *In re Marzocchi*, 439 F.2d 220, 223, 169 USPQ 367, 369 (CCPA 1971). The burden placed on the examiner is reflected in the MPEP Section 706.03. Even if the application did not disclose actual analogues, the absence of which does not establish lack of enablement. The lack of working examples is one consideration in the overall analysis of lack of

---

[1] See claims 18-24.

enablement. *In re Colianni*, 561 F.2d at 224, 195 USPQ at 153. The MPEP, Section 2164.02, states: "[t]he specification need not contain an example if the invention is otherwise disclosed in such manner that one skilled in the art will be able to practice it without an undue amount of experimentation."

Claims 2-5, and especially claims 13-17, are directed to highly specific compounds possessing common structural characteristics, contrary to the Examiner's point (4).

Applicants contend that, unlike the technology of *Wands*, the procedures used to manufacture and test the analogues of the present application were well-known to those skilled in the art when the present application was filed. The Examiner's argument that the prior art (5) shows many somatotropin analogs, including anticipatory art (6), so that the level of skill in the art is very high[2] (7)", supports the enablement of the present application. According to reasoning of the Examiner, one skilled in the art should recognize the compounds of the instant application to be somatostatin analogues since a species of

---

[2] The amount of guidance or direction needed to enable the invention is inversely related to the amount of knowledge in the state of the art as well as the predictability in the art. *In re Fisher*, 427 F.2 833, 839, 166 USPQ 18, 24 (CCPA 1970). The more that is known in the prior art about the nature of the invention, how to make, and how to use the invention, and the more predictable the art is, the less information needs to be explicitly stated in the specification. In contrast, if little is known in the prior art about the nature of the invention and the art is unpredictable, the specification would need more detail as to how to make and use the invention in order to be enabling.

the claimed genus was actually known at the time the instant application was filed. As such, one skilled in the art could easily practice the invention of the present application without undue experimentation. Clearly, points (5)-(7) ***support*** enablement. In *Wands*, the court held that the specification was enabling with respect to the claims at issue [since] "there was considerable direction and guidance" in the specification; there was "a high level of skill in the art at the time the application was filed;" and "all of the methods needed to practice the invention were well known." Id. at 740, 8 USPQ2d at 1406[3] Clearly, like *Wands*, undue experimentation would not be required to determine which analogues were needed to practice the invention of claims 18-24.

Applicants respectfully request that the rejection of claims 18-24 under 35 U.S.C. §112, second paragraph, be withdrawn.

---

[3] *In re Wands*, 858 F.2d 731, 8 USPQ2d 1400 (Fed. Cir. 1988), the court reversed the rejection for lack of enablement under Section 112, first paragraph, concluding that undue experimentation would not be required to practice the invention. The Court reasoned that the nature of monoclonal antibody technology is such that experiments first involve the entire attempt to make a monoclonal hybridomas ***to determine which ones*** secrete antibody with the desired characteristics. The court found that the specification provided considerable direction and guidance on how to practice the claimed invention and presented working examples, that all of the methods needed to practice the invention were well known, and that there was a high level of skill in the art at the time the application was filed.

With respect to the enablement of claims 25 and 26, directed to a pharmaceutical composition and a method of treating certain medical conditions and diseases respectively, Applicants adopt and reassert herein the above arguments with respect to the enablement of claims 18-24. Applicants contend that use of the claimed compounds as a pharmaceutical composition to treat a highly specific disease or condition would be enabled based on knowledge in the prior art at the time the instant application was filed. As discussed at pages 1-2 of the instant application, at the time the instant application was filed, neuromedin B was known to have a wide range of biological and pharmacological effects[4] said effects having a causal relationship to said medical conditions and or diseases. The initial enablement analysis with respect to claims 25 and 26 should be based on whether there is any evidence that one skilled in art could not use the compound for any disclosed or well-established pharmaceutical use, i.e., treatment of some disease or condition *in vivo*, without undue experimentation. The Examiner has provided no such evidence and as such Applicants respectfully request that the rejection of claims 25 and 26 under 35 U.S.C. §112, second paragraph, be withdrawn.

---

[4] In *re Bundy*, 642 F.2d 430, 434, 209 USPQ 48, 51-52 (CCPA 1981), the court ruled that the claimed analogs of naturally occurring prostaglandins had certain pharmacological properties even though the specification lacked any examples of specific dosages, but did state that the novel compound possessed activity similar to E-type prostaglandins.

In his rejection of claim 26 under 35 U.S.C. §112, second paragraph, the Examiner indicated that "obesity" was not a disease, but did not specifically reject claim 26 based on this conclusion. Without conceding the correctness of the Examiner's conclusion, Applicants have amended claim 26 to recite that the claimed method can be used to treat, in addition to diseases, medical conditions, such as obesity.

6-7. Claim 1 was rejected under 35 U.S.C. §102(a) as being anticipated by European Patent No. EP 0 395 417 to Coy *et al*. Without conceding the correctness of this rejection and in an effort solely to place this application in a condition for allowance, Applicants have canceled claim 1 without waiver or prejudice. Applicants reserve the right to file a subsequent application directed to the subject matter of claim 1.

Applicants respectfully submit that the claims are in a condition for allowance and notification to that effect is respectfully requested. The Examiner is invited to telephone Applicant(s) attorney at (508) 478-0144 to facilitate prosecution of this application.

Please apply any charges or credits to Deposit Account No. 50-0590 referencing attorney docket number 069P/PCT2/US.

Respectfully submitted,

Date: 9-20-2004

Alan F. Feeney
Attorney for Applicant
Reg. No. 43,609

Biomeasure, Incorporated
27 Maple Street
Milford, MA 01757-3650
(508) 478-0144 Telephone
(508) 473-3531 Facsimile